THREE REPORTS FROM CHURCH AND SOCIETY

Science and the Quality of Life

Political and Economic Choices in a Technological Era

Images of the Future

Prepared by the Working Committee on Church and Society, meeting at Nemi, Italy, June 17-26, 1971, for the Ecumenical Inquiry on *The Future of Man and Society in a World of Science-Based Technology.*

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The Working Committee on Church and Society met in Nemi, Italy, June 20-26, to plan the next steps in the ecumenical Inquiry on the Future of Man and Society in a World of Science-Based Technology. Thirty distinguished scientists joined the theologians and others who participated in this meeting. Following are the reports of the three working parties into which the meeting was divided.

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Church and Society — Three Reports

First Report: Science and the Quality of Life

I. A General Disturbance

Today science has become a problem. So have very many other human activities which we used to pursue without asking any questions about how good they were and what they were for. Science has become a problem because the practice of it has produced many problems and threatens to produce many more. For example, within the biological sciences questions like the following are raised. If you succeed in keeping more people alive and keeping them alive longer but do not succeed in feeding, housing, educating or employing them properly, what then ? If you find out what causes an idiot child do you have a duty to stop such a child being born ? And who is "you" ? The doctor who can see to it that the necessary tests should be taken and interpreted ? The prospective parents ? Some officials of the state ?

Once it becomes clear that a whole lot of human conditions are not the result of the will of God, of fate or of chance but caused by a chromosome which is itself to be understood biochemically what does this do to our understanding of what it is to be human ? And if we are going to have to decide about preventing the birth of handicapped children do we not need to be very clear about what is involved in being human ? How otherwise shall we avoid facile fashions about what is "handicapped" ?

All these and many other questions are very disturbing and the disturbance is very far-reaching. More and more people are finding that they cannot reconcile what they know of science, what they have come to believe in the realm of religion and their overall understanding of life. This is so whether or not they are trained in one or other of the sciences. Among the non-scientists there is growing concern about the inter-action between science and society. The questions posed by the disturbing developments clearly have ethical aspects and raise issues about the nature and future of man. Surely, therefore, we should mobilize all the traditional moral, philosophical and theological resources we have and confront the disturbing questions on the bases these resources provide ?

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The effects of the disturbance

The difficulty is that the total disturbance (made up of the effects of so many discoveries arising in and so many possibilities arising from an immense number of different scientific developments) is also a disturbance of the bases and methods hitherto taken for granted in traditional moralities, philosophies and theologies. The world and human beings in it appear in a very new light ; choices which have never before arisen now have to be made and traditional routines for judgements and decisions therefore do not work in any straightforward or automatic way.

One symptom of this is the way in which there has largely been a failure of contact between theologians and troubled scientists. Despite the fundamental nature of the questions involved there rarely seems to be effective meeting between those who are troubled about their responsibilities in the developments and applications of science and those who have the responsibility of bringing the resources of the Christian tradition to bear on human problems.

In view of the general disturbance to all human ways of understanding and of evaluation there is little point in one class of participants in the disturbance (e.g. scientists) complaining that they have been let down by another class (e.g. theologians) or vice versa. Rather, it is necessary to see that everyone is involved in the disturbance, all have contributed to it, been caught out by it and may be negligent in it. The need, therefore, is to find ways of combining resources to find creative ways of responding to the disturbance with its possibilities, both promising and threatening.

A suggestion concerning the theological significance and human possibilities of the disturbance

It is suggested that we may be helped in our understanding of, and approach to, the range of disturbing questions that have to be faced and decisions that have to be taken if we consider the following. The biblical story of the revelation of God can be read as showing God acting as the Disturber. It is in the unexpected, the problematic and the overthrowing that God is to be experienced and through which His revelation grows. Abraham is not left in Ur but neither does a regular nomadic pattern become the life of the people of God. Neither Egypt, nor Promised Land, nor Exile are havens for the people. The Temple is the sign of the presence of the Glory of God and then that which has to be destroyed. At every crisis the very existence of the people of God becomes problematic and it is only through the discernment of the prophets that a continuing and developing knowledge of God is built up.

Jesus is likewise unexpected (a suffering Messiah), problematic (*how* does he fulfil the law, is it he that shall deliver Israel ?) and disturbing (so threatening that it was necessary to crucify him and so enigmatic that he has never ceased to cause controversy and require uncomfortable obedience that is never fulfilled). As Christians we hold that Jesus is the living reality of God's purpose for men and embodies the love of God which works this purpose out. But what this means in hope, in choice and in act has to be perceived at present and in our struggles for the quality of truly human living.

If this line of attempted theological discernment is valid then we may see the particularly disturbing questions about the possibilities and qualities of human life as forcing our attention to the potential growing points of human life. We may also be set free from surprise and alarm at the radical nature of the reassessment which is required of both our pre-suppositions and our policies of action.

II. The Churches and Social Responsibility of the Scientist

Our examination of the issues of science and the quality of life raises the larger problem of the social responsibility of scientists. The changing pattern of scientific work, the widespread suspicion of the power of science, the great dependence of modern society on science and technology and the awakening conscience of many scientists all combine to highlight the need for not leaving the scientists alone. An increasing number of scientists ask not to be left alone and seek help in defining their responsibility in shaping the society of today and in the future. And many non-scientists want to know more about the decisive areas of interaction between science and society, and the impact of science on traditional values, ethics, religious beliefs, etc.

Recommendation : That the World Council of Churches continue the discussions of the social responsibility of scientists initiated at the 1971 meeting of Church and Society ; that the addresses given on this theme be widely circulated for comment ; and that plans be made for a more comprehensive discussion of the subject in 1972/73, focussing on its meaning in a world perspective. Specifically, the proposal is to publish a book of essays growing out of the conferences of Geneva 1970 and Nemi 1971, relating to the dialogue between the Church and the scientific community about social responsibility. The response to this publication will no doubt suggest further directions which such an inquiry should take.

III. The Examination of a Specific Area of Disturbance in Genetics

A. *Method of approach*

We further suggest that the urgent human questions about Science and the Quality of Life be examined through a pilot study in some very specific areas of scientific activity which generate disturbing problems. The starting point cannot be from some moral or theological presuppositions because these are already involved in the disturbance. The starting-point is, rather, something disturbing. Specific problem-generating areas must be chosen and studied in some depth with a view to discovering at what points really new and disturbing possibilities and, therefore, choices arise. What choices have to be made (or will be made by default) ? How are the persons responsible to be sustained in their choices ? What means must be developed for monitoring and correcting the choices in the light of their subsequent effects ? The belief, to be tested, is that in this way we may hope to bring together, in relation to the particularities of present human problems, the human concern aroused by scientific developments and the human hope implied by the Christian faith.

It must be recognized that just as the methods and relevance of habitual morals and traditional theology are called in question so are the assumptions of science and technology. We have to find specific ways of investigating such a question as how far the practice of science and technology itself is a human activity which contributes to the diminution of the quality of life because some techniques in themselves, or in the manner of their application, are fundamentally inhuman. As science is an activity of human beings it is certain that its practice sometimes involves, like all human activities, flaws which are as dangerous to the quality of human life as are mistakes in the application and social uses of its results. From the Christian point of view, however, attempts to submit human activities to judgement are directly related to the hope of renewal and liberation through the possibilities reflected in Jesus Christ. Thus a searching attempt to find sources of

inhumanity is the product of a faith in the possibilities of liberating a wider and truer humanity.

As we work at the topics suggested below in accordance with the approach suggested in this section we shall hope to be able to discern and bring to bear the relevant insights of the Christian faith. These will be those which will illuminate the problems, point to the criteria and help to suggest the actions which are most central to the development of a quality of life which fulfils our humanity.

One of the most important insights to be developed is the Christian understanding of personal life and inter-personal relationships. The quality of life is directly related to growth in the possibilities of individual and community relationships, to the fulfilment of human selves in a communal whole. The vision of the Kingdom of God can be understood, in one way, as that state of affairs in which all men are fully themselves because, through the unimpeded presence of the love of God, they fully contribute to the life of one another and fully share in the life of one another.

We suggest that the problem-producing developments in science (that is, in the various sciences) should be examined in the light of the way in which they increase the possibilities of personal influence over, and personal responsibility for, our environment and the direct development of ourselves.

For example, knowledge of the chromosomal causes of genetic defects may well mean that the birth of human offspring with no capacity for intelligent life ceases to be an impersonal chance and becomes a personal choice. In quite another area, developments in agricultural and relevant sciences and technologies mean that famine ceases to be an impersonal natural disaster and becomes a matter for personal action which can avoid it or personal exploitation which allows it to continue to happen. Of course, the new personal possibilities can be exploited in impersonal and in human ways. But this brings us back to the understanding of judgement and promise to which reference has already been made.

It will be obvious that this section does not offer a worked-out statement of any of the points which it raises. It is set out as some explanation of our choosing the approaches suggested below. It is also intended to indicate the direction in which the proposed working method might lead.

B. *Genetics and the quality of life — a pilot study*

The Working Committee considers that the most important aspect of genetics in relation to quality of life at present is the extent to which genetical potentialities are not fulfilled because of sub-optimal environments of many communities. Human fulfilment is inhibited seriously by many factors such as poverty, malnutrition, psychological factors and by the presence of toxic substances, some of which produce genetical as well as physiological damage. The entire problem of the preservation of a wholesome environment for man has profound consequences for the heritage of man. We are reminded "The fathers have eaten sour grapes, and the children's teeth are set on edge". The task of working toward a more optimal environment for all peoples is emphasized at the outset of this report though this in itself is not primarily a problem for genetics as such.

The specifically genetical problems which concern us have to do with the following. A major shift in the nature of future medical care is requisite. The great successes of the period since 1940 in overcoming infectious diseases as causes of human mortality and suffering make constitutional disorders, including mental disease, a major concern of medical care. At the same time, by reducing the

rigor of natural selection against hereditary disabilities, modern medicine permits the survival and reproduction of the carriers of many defective genes who in earlier times would not have reproduced. Consequently, the human gene pool contains higher frequencies of many defective genes, and the genetically determined or predisposed disorders form an increasing part of medical care. Congenital blindness and deafness, cystic fibrosis and muscular dystrophy, xeroderma pigmentosum (a cancer), severe mental defects, numerous metabolic disorders such as diabetes and allergic predispositions are but a few examples in a lengthening catalogue of literally thousands of genetic ailments.

The most severe genetic defects are the lethals, which cause death at some age or other. Some such as Huntington's chorea, a severe mental degenerative disease, produce evident symptoms only after adulthood is reached, but the dominant gene responsible for the disease is often transmitted to offspring before the disease is recognized in the possessor. The severest of all lethals kill the human foetus or embryo, and are eliminated by natural abortion. Some estimates of the frequency of these are as high as 50% of all conceptions. At least 25% of all conceptions, by a more conservative estimate, are aborted naturally. Most of these are caused by an abnormal chromosome constitution or a lethal genotype.

The less severe genetic defects are those in which the foetus survives the course of pregnancy and the child is born alive, only to remain hopelessly incapacitated for normal physical or mental development (e.g. mongolism or amaurotic idiocy). These are the genetic disorders of greatest concern to the family and to society. Negative eugenics is chiefly concerned with the possibilities of reducing the personal and social burden imposed by such cases.

Recent biological developments offer some new ways of reducing this burden and pose a number of ethical questions which are indicated in what follows.

C. *Recommendations*

1. *Detection and genetic counselling*

A large majority of the most serious genetic disorders are recessive. That is to say, the affected person carries a double (paternal and maternal) dose of the defective gene and has no normal gene counterpart. It is now possible, for about 60 different biochemical disorders, to detect the presence of the defective gene in the parents of such a sufferer, or in any other carrier of the defective gene. These delicate biochemical or blood tests may be applied to all individuals related to a defective person or to the partners in a consanguineous marriage, who are more likely to carry the same genes than are unrelated persons. Again, certain ethnic populations have high frequencies of particular defective genes, for example, sickle hemoglobin and anaemia and the currently incurable Tay-Sachs disease, a mental degenerative disease that kills in childhood.

We *recommend* that the WCC establish a panel consisting primarily of geneticists and theologians with due regard for representation of the views of fathers, mothers and children to study the following propositions :

— that the WCC encourage the churches greatly to extend their marriage counselling services by including elementary genetic counselling and referral in all cases of need (consanguineous marriage ; presence of known probably genetic, physical or mental defect among relatives, etc.) to appropriate human genetic and medical clinics for tests ;

— counsellors should be instructed in elementary human genetics. Persons contemplating marriage who are found to be bearers of the same recessive defective genes, or any bearers of dominant defective genes, should be advised

not to have any children if the condition is severe, as determined by a professional medical geneticist. In cases where defective children are born the church should provide needed counselling and support;

— alternatively, if the probability of a defective child is one in four or lower, the parents might wish to run the risk. By means of the method of amniocentesis (see 2), prior to the twentieth week of pregnancy, it may be determined whether the foetus is defective ; and, in case that proves to be so, to undertake an abortion. The churches should be prepared to endorse the personal right of parents to choose an induced abortion to prevent the birth of a gravely defective child. Wherever the laws of the state make this illegal, the churches should press for a modification of the law to permit such options to take place.

2. *Foetal diagnosis and abortion*

Amniocentesis is the withdrawal, by surgical needle, of a small amount of amniotic fluid surrounding a foetus. In the amniotic fluid are floating cells derived from the foetus, and sometimes cells of placental (maternal) origin. The foetal cells may be examined directly under the microscope for chromosome abnormalities, or may be cultured until sufficient quantities are available for biochemical tests. Thus such extra-chromosome aberrations as mongolism (Down's syndrome) or the abnormal numbers of sex chromosomes (XO, XYY, XXY, XXX, etc.) may be detected. Also 60 or more biochemical deficiencies, such as amaurotic idiocy, may be diagnosed.

When the conditions produced by diagnosed genetical diseases are severe and untreatable by present medical means, the defective foetus may be aborted. This option to reduce severe and hopeless psychological and financial burdens on family and society leaves the parents free to try again to have a normal child. This procedure in fact simply extends nature's own way of eliminating severe physical or mental defect by including those cases that are incapable of a normal self-reliant life.

We *recommend* in regard to foetal diagnosis and abortion : That the WCC direct the following proposal to the panel of experts (see Recommendation 1 above) for their judgement: recognizing the freedom of parents to decide finally about the birth of their child, we nevertheless question whether it is not personally and socially irresponsible to bring into the world a child known before the 20th week of pregnancy to be severely defective ; that is wherever and whenever our knowledge can provide every child with the capacity for life without severe mental or physical defects. We propose that the paramount right in reproduction is the right of the child to a sound genetic endowment rather than the right to procreate. The churches should be prepared to support parents in their right to choose an induced abortion to prevent the birth of a gravely defective child and to support them in the care of defective children who are born.

Panels of geneticists, physicians and ethicists would need to give continuous attention to the criteria for performing abortion, because of the rapid shifts in methods of effective treatment for specific conditions.

There is an urgent need to extend the availability of procedures of foetal diagnosis from the few centres where it is now available to the peoples of the world.

3. *Genetic correction*

Ordinary medicine proceeds with growing knowledge from (a) a treatment of mere symptoms to (b) a specific supply of a missing metabolic product or a

regulator substance, and thence (c) to the supply of a missing or inactive enzyme. It will soon become possible (d) to deal more directly with the defective gene by supplying the particular messenger-RNA which is required to produce the needed enzyme. Not much farther in the future lies (e) the possibility of real cure of a genetic disorder by providing the correct DNA of the defective gene. At this stage the biochemical treatment moves from the level of euthenics (changing the phenotype) to eugenics (changing the genotype). The treatment is, however, no less biochemical. A harmless virus may be used as a carrier of the functional DNA needed to replace the inactive DNA. These procedures raise a number of ethical questions, all of which relate to the propriety of experimenting on humans : (a) Should the treatment be extended to the reproductive organs in order to substitute a sound gene for the defective gene that might be transmitted to the next generation and thus increase the frequency of genetic defect in the population ? (b) Probably the easiest case material to "cure", both somatically and genetically, would be the defective embryo. The ethics of human experimentation is thus raised. To produce from parents who are carriers of a genetic defect a number of embryos in the laboratory and to treat these so as to alter the said defect and make them functionally normal, and then to implant the embryo in the mother is clearly feasible, and most of the techniques already exist. Should it be permitted ? (c) Or should implantation of an embryo produced by other, selected parents be permitted (prenatal adoption) ? (d) Should the human embryos produced in the laboratory be studied during their development under various physiological conditions ? (e) Should the effect of new drugs be tried out on embryos before those drugs are released for use by expectant mothers ? (f) Should other methods of experimentation with the unimplanted embryos be permitted ? (g) When artificial placentas and wombs are produced, should experimentation with embryos be carried to later stages ? Undoubtedly much medical information that can be gained in no other way and of great value to the future health care in the prenatal months, could be learned, but should it be permitted because good may come of it ?

We *recommend* that the WCC request the panel of experts (see Recommendation 1 above) to study these questions in anticipation of developments in this rapidly advancing field.

IV. The Human Environment and Responsible Choice

Introduction

In recent years a rising crescendo of prophetic warnings in all genres — some reasoned and forceful, some shrill and exaggerated, some cautiously hopeful, some deeply pessimistic — have told us that the environment on which we depend, our air, water, soil, living space, are seriously deteriorating and in danger of making human life brutish or perhaps impossible. There are some familiar elements in the warnings. Often in this century men have been warned that their use of natural resources like timber, or their own fertility and increase, would sooner or later bring unacceptable consequences. But today a new sense of urgency has come upon us as the result of the coalescence of a number of factors — a steeply rising rate of population growth, ever-increasing industrial expansion with its appetite for raw materials, and the new high level of world economic interdependence which, with novel communications techniques, has created a new sensitivity to the needs of poor countries. Thus although today's situation may not be at all points new, it has become newly critical. Suddenly it appears to many people, with frightening intensity, that we are pushing against the limits

of a finite world, that in all likelihood something vital will before long give way, and that the traumatic reassessments which will then be forced upon us are full of possibilities for tragedy.

In the following survey of the problem's main elements we have tried to see the facts, as far as we are able, in their wholeness, in their relation to other facts. We do not pretend that our perception is value-free. That would be impossible and, from our Christian point of view, undesirable. But we have tried to avoid isolating particular malfunctions of the ecosystem and basing conclusions on such single instances. We wanted to understand the sources of the differences among men who view the same problem from different perspectives, the better to think constructively and responsibly about what ought to be done.

Our work has had three possible uses in view, which we recommend to the Working Committee on Church and Society for its consideration:

1. The eventual publication of a booklet for the churches and general public on responsible choice in environmental issues. The present document, a perspective on such issues, would form part of such a booklet. A second and longer section would discuss the formation of ethical attitudes relevant to the problem. This paper has already been written, discussed by two separate working parties, one in Geneva in May and this one here at Nemi, and is now undergoing its second revision. A third section of the booklet would discuss possible action programmes for churches, communities, and individuals. An annotated bibliography of suggested readings would be appended.
2. A shorter document destined for the United Nations Conference on the Environment, to be held in Stockholm in 1972. The secretary general of the conference has asked for such a contribution from the World Council of Churches. We propose that it concentrate on ethical issues.
3. A statement to the churches to be presented to the Executive Committee of the WCC in September for its formal adoption. This statement would be substantially the document here presented, as revised in the light of subsequent criticism.

We also have a further suggestion, which appears at the end of this overview of the situation.

A. *Resources*

1. One of the major pressure points is the approaching foreseeable end to certain non-renewable resources. In some cases, as perhaps with certain fuels, depletion will be handled successfully by shifting to new sources of energy to accomplish the same social ends. Some people assume the transition will be relatively smooth, while others expect that exhaustion of conventional sources will create major crises with considerable social damage.
2. For other non-renewable resources — arable land, for example — there is apparently no conceivable substitute. Here the sense of limits seems particularly unavoidable, although there is not such an obvious limit to output from this land.
3. Even where substitutes may be available in the future, current usage remains a problem. Wise planning would have to take account of present conflicting claims for scarce materials, and allocate their use both according to contemporary need and likely future demand, before the discovery of alternative sources. It seems obvious that we should regulate our present consumption with the projected needs of future generations in mind, so far as we can predict that they will have to rely on the same resources we employ.

4. The finiteness of these resources at any given time poses acutely the problem of equitable distribution. In a situation of perpetual growth this problem was obscured by the fact that the poor's standard of living was at least rising, though the gap between rich and poor was not diminishing. When quantitative growth ceases or slows, inequality becomes painfully obvious and the moral problem becomes acute.
5. Inequality is, of course, a problem within a given society; but as posed by the finiteness of resources it is particularly evident between nations, between developed and developing countries. The challenge of international social justice thus confronts us at the outset of our inquiry into the environmental question. The two crises are inextricably linked. We cannot speak of an environmental policy without a development policy, any more than we can effectively pursue development without environmental planning.
6. As the poorer countries struggle to develop, the competition for limited supplies of natural resources will intensify. Such competition is a cause of international tension now and has in the past figured importantly among the causes of war. The lesson for the future is plain.
7. In order to avoid such dangers new distribution and use schemes are indicated. This does not mean that western technology should be simply copied in the developing countries. There have been serious errors committed in industrial society which must not be repeated in the Third World through carelessness. Rather the application of technology should be suited to each nation's own development goals. But alteration of current economic power relations is clearly implied, so that whatever form development takes in the poorer countries their material situation vis-à-vis the developed countries will be improved absolutely.
8. Measured against the criterion of world need many of the current consumption habits of the developed countries seem frivolous and wasteful. They use up resources for purposes which may be called inessential when compared with the unmet needs of the developing countries. Among the many examples of this wastefulness perhaps the most obvious is the sum spent on armaments; but even at the level of the individual consumer the money spent on cars and objects solely for pleasure should trouble the Christian conscience. Outside of a general international arms agreement and a substantial alteration in world economic power relations, perhaps the best hope for correction lies in slowly changing consumer attitudes in the developed countries as the magnitude of the resources problem is borne in upon the public awareness.
9. We noted a disagreement over the relation of political systems to development and use of resources. Some say the fault in the current gross inequality is the profit system, which encourages the production of unnecessary items by catering to consumers' whims, and which must be replaced before lasting corrections can be accomplished. Some believe socialist countries are also wasteful as well as being poor contributors to the development of the Third World. Some argue that the market mechanism can meet the needs of the developing countries, offering them a means, if employed with political skill, of making the best use of their resources, e.g. in getting higher prices for their exports of raw materials so as to use the revenues for development. And some see little hope for substantial progress until international agencies control the allocation of resources.

B. *Population*

1. The steeply rising rate of world population growth poses a host of urgent problems. There are disagreements as to the maximum number of people the

earth can support; but whatever one's estimate, no one seems seriously to doubt that we are approaching the critical point far too rapidly for complacency.

2. More people mean increasing pressure on the use of limited resources both because of greater numbers and because the rate of use by each person is increasing.
3. Population growth contributes, along with the migration from rural areas, to the accumulation of people in cities in ever more crowded conditions. The psychological effects of density on human beings appear to be mainly adverse, and the public services required by urban agglomerations are exceedingly difficult to supply.
4. Rapid population growth in the developing countries eats up their economic growth, cruelly frustrating their hopes for development. Population growth in the developed countries multiplies their already disproportionate consumption of the world's resources, again frustrating the hopes of the developing countries for a better share.
5. We do not presume to guess what an optimum population size would be. The possibilities of each region vary, and there are many imponderables in the picture. It is even true that some areas of the world are relatively underpopulated. But the clear effects of overpopulation are visible in many other places. The reversal of the curve of world growth is inevitable. The question is whether it will take place by disease, famine, and war, as is already beginning to happen; or whether we can achieve a planned reduction without catastrophe.
6. When we discussed means of population control, no one in the group questioned the ethical acceptability of all voluntary means of contraception. But we recognized that abortion *as a means of population control*, and all compulsory programmes, raise questions of conscience which are still problematic, but increasingly pressing.
7. Family planning is not the same thing as population control. Even with universally available contraception, growth rates may continue because people want large families. There are psychological, social, and economic reasons for this preference (such as the desire for security in one's old age) which need to be understood and faced if growth is to be halted. Such routes to control are long and arduous, but must be followed. Meanwhile manipulation of economic motivation through the tax structure and other means may offer some more immediate hope.
8. It has been a cardinal assumption that any elementary list of human rights should include the right of parents to decide when to have children. But this right needs to be exercised in the light of the parents' obligation to the larger society.
9. Perhaps the most disturbing factor in current attempts to encourage population limitation is racial and national politics. Some people continue to see numbers as power and are wary of anyone who urges them to limit their growth. This is particularly evident where a dominant group urges limitation on a weaker group, as when developed-country spokesmen tell the developing countries their growth rates are too high. The major promptings for effective limitation have to come from within the country affected if they are to be heeded.
10. Furthermore the fact that the problem must be treated nationally is underscored by the international restrictions on migration. It seems unlikely that relatively underpopulated countries can be made to accept the surplus population of other areas — except by war and conquest. Such territorial posses-

siveness, and the cultural isolation and pride which accompanies it, can hardly be pleasing to the Christian conscience ; but the fact must be reckoned with realistically. Migration is an illusory solution to the population problem under current conditions.

C. *Pollution*

1. Pollution occurs when the normal functioning of an ecosystem is upset by the introduction of foreign elements. Sometimes it is unintentional, when man fails to recognize the effects of his acts ; but sometimes it is intentional, when man simply disregards the consequence. While the immediate victims of pollution are the plants and animals, man may eventually become a victim of his own acts. Some of the pollutants are toxic and are eventually ingested by humans. The working group on genetics has reminded us that many of these agents and substances can induce mutation of the genes and chromosome breakage, producing genetic as well as physiological damage. The harm is thus caused not only to the present generation, but to our descendents, who inherit their capacities from us.
2. While in the past men have tended to assume that there was no long-range danger in depositing chemical and physical materials in the natural environment, that nature would absorb and neutralize any harmful side effects, we now learn that the corrective capacity of an ecosystem can be blocked. Its elasticity can snap and fail to recover. Its ability to absorb and repair damage is not unlimited. The period required to recover from some man-made irritants may be centuries long, rendering the damage effectively "permanent" as far as present life is concerned.
3. Just as man causes pollution, man has the technical capacity to end almost all the destructive practices. True, the accumulation of pollutants in the environment is tied closely to styles of production, industrial and agricultural, which are not easy to change quickly, involved as they are with entire patterns of living. Nevertheless, correction is possible once public attention has been drawn to the dangers and the political will created to apply the necessary costs.
4. Pollution has a "social cost" which should be calculated as part of production costs for industries which have pollution problems. It will probably take effective legislation, including perhaps stiff penalties for violation, to insure that these social costs are taken into account. Owing to international industrial competition, equivalent regulations will have to be in effect in all nations if this new accounting is to work.
5. Political systems are not always responsive to the pollution problem for lack of effective power or jurisdiction. This is especially the case between nations. International areas like the seas and the atmosphere are currently beyond effective control, or at least subject only to incipient control systems. As pollution is no respecter of frontiers, its spread raises in a new way, with new urgency, the question of internationalizing certain governmental functions currently belonging to sovereign states.
6. Constant vigilance is necessary to protect gains achieved. Public attention flags, weakening the political will to enforce compliance. Economic pressures may lead to avoidance of anti-pollution laws. New technical or social developments or unexpected consequences of existing practices may change the picture entirely.

Concluding Recommendation

In order to test and refine these approaches we recommend that a panel of experts be commissioned to explore in depth one or more particular environmental issues which have major ethical implications. We hope that the report on "Political and Economic Choices in a Technological Era" might help in the selection of issues for study.

It is also recommended that a continuing group be formed to keep the churches informed on current environmental questions.

Second Report: Political and Economic Choices in a Technological Era

I. Social Justice, Environment, Population and the Quality of Life

Mankind, through technology, has vastly increased human powers of dominion and stewardship over the earth. But within existing social structures nations and groups within nations use technology to dominate and exploit other nations and groups. Another consequence of such employment of technology is the increasing gap between rich and poor peoples.

Justice and human dignity require increased economic and technological development among some people in the world and among particular groups within nations. Such developments require changes in appropriation of the world's resources, not as a condescending grant from some to others but as a basic human right. They also require changes in the distribution of political and economic power.

Economic and technological development has characteristically meant increased use of natural resources and increased pollution of the environment. We already see the approaching exhaustion of some valuable resources ; and increasing pollution threatens human life and health, immediately in some places and ultimately everywhere. There is already discussion of the desirability of a zero growth rate in global economic production. The proposal is debatable. If it is persuasive, it means that justice will require wealthy societies to moderate, halt, or even reverse their rates of consumption and pollution in order that other societies may accelerate economic growth. Even if it is not persuasive, the evidence is overwhelming that economic growth alone, without redistribution of power and resources, will not bring justice. Recent indications that weaker countries, by pooling their efforts, can demand higher prices for their products, as in the case of oil, are small, yet encouraging signs of change in a favourable direction.

Population growth increases the demand upon economic production. While no one knows precisely how many people the earth can support, there is a limit ; hence overall population growth of the earth must inevitably stop at some point. The number of people that the globe or any area on it can sustain depends partly upon how much they consume and pollute. A society that needs economic development for human well-being finds its efforts frustrated if population growth outruns economic growth. However, developing countries rightly protest when wealthier countries use "the population explosion" as a pretext to avoid their own responsibility for social justice. Actually population growth in industrialized societies, where per capita rates of consumption and pollution are high, is no less urgent a problem than in developing countries. In both cases population growth presents problems that humanity cannot avoid.

These considerations require man to reconsider the meaning of human life and community. Societies, heedless of responsibility toward other men and future generations [1], have measured their success in terms of high consumption and growth in the gross national product; but the judgement upon such insensitivity is increasingly evident. Economic development, to a degree, is a necessity for human liberation; pursued excessively or made an idol, it is enslaving. A society, freed from both economic privation and idolatry, may offer its members a higher quality of life than most men know today. The Church, in particular, can testify that man, who lives by bread, does not live by bread alone. This testimony the Church celebrates sacramentally in the breaking and sharing of bread.

We *recommend*: (consistently with the report of the Ecology Working Group) that the Church and Society Department commission an investigation of: *a)* the issues raised by the consideration of the finite limits to the earth's physical resources and of the growing pollution of the environment, taking account of the earth's finite capacity to absorb it; *b)* the arguments (as given in paragraphs 3 and 4 of the text) for reduction of economic growth in developed countries; and *c)* the implications of these findings for social justice, especially on the international scale.

Resolution

(With reference to the last sentence of the third paragraph, part I) We urge Christians everywhere to support these efforts both politically and economically, and work together with other Christian and non-Christian organizations and persons with a view to effective action.

II. Cities in Trouble — The Universal Urban Problem

Urbanization is a world process that has different characteristics and potentials in every country. Theoretically cities can grow indefinitely. The population of a country can become 100% urban and still its cities will continue to grow in absolute numbers as a result of natural increase. On present trends, we can expect to see several human agglomerations of 20, 30, 40 or more million inhabitants by the year 2000. The problems they will pose to developed economies will be quite different from those that will confront developing economies. While developed countries are mainly concerned about the quality of the environment (traffic control, urban government, deterioration of the housing stock, racial discrimination and increased management costs), developing countries are mainly worried about unemployment and underemployment and the supply of basic housing and other essential urban and community services.

But both developed and developing economies, will have to ask themselves: if we haven't learned to live in cities and to manage cities of 1, 2 or 4 million people, how can we expect to learn to live in human agglomerations of 10, 20 or 40 million people? Cities are man-made artificial environments built to perform certain cultural, social, economic and political functions. They reflect the structure of a society. Different socio-political systems produce different settlement pat-

[1] There are differences of judgement among us about man's ethical responsibility for posterity. To some, a concern for future generations is a fundamental ethical responsibility: to pollute their world or rob it of resources is to be ethically callous. To others a concern for the distant future reveals a lack of confidence that ignores the ability of future generations to look out for themselves.
We agree that man has responsibility for leaving a good earth to generations which follow, with a diminishing responsibility for generations of the distant future. Likewise we agree that we sometimes face difficult conflicts between immediate and long-range human goods. Some of the theological and ethical dimensions of these issues are discussed in a paper by Prof. Thomas Derr.

terns in response to different national objectives and different forms of control of their productive capital and human resources. In a world which is urbanizing rapidly and which is already 50% urban we still don't know what sort of cities we want. The people are more certain about the conditions they don't want to find in the cities they live in than about the environment they want to have.

Employment, urban services, housing, schools, cultural activities, adequate transportation, playfields and parks, all are objectives clear to define but, even if we could afford them, how can we combine them so as to create an environment of quality ? The cities we build now will be needed by our children and grandchildren but how can we plan them so as to incorporate the ideas and values and institutions that will be necessary in an ever-changing world ?

The underdeveloped city is and will be a crucial problem of the developing world. What is an underdeveloped city ? Basically a city which is largely self-built with perishable materials, where unemployment and poor urban services affect the lives of an increasing number of families, where social tensions and squalor appear side by side. It is the city built with insufficient human and capital resources. It is the city of socio-economic systems which have failed, or have not yet been able to create the basic conditions for an adequate life.

Urban problems cannot be isolated from the problems of rural development. The rapid process of urbanization that we witness in developing countries is the result of high rates of natural population increase and of the migrations from rural to urban areas. In developing countries the population, especially the urban population, has a tendency to concentrate in relatively small areas of each national territory reflecting the disequilibrium in the levels of development and the uneven distribution of opportunities and resources that exists in each country.

Urban areas are not prepared to deal with the fast demographic and physical growth that is taking place and that is expected. Urban economies have not been able to ensure employment and basic services for a large proportion of the urban population. The costs of providing the new urban population with minimum housing and services are so enormous that few or no developing countries will be able to provide them, at least in the foreseeable future. The following key questions have to be asked: Which socio-economic system is the most convenient for countries in the present phase of development of developing countries ? How have the following key decisions been made, and how should they be made ? — (a) the creation of preconditions for a more comprehensive solution in the future ; (b) the definition of a strategy that will make a better use of the limited resources at our disposal to provide urban solutions which includes the decisions that will affect the spatial structure of nations in the future ; (c) the control of the development of land (which may often involve public ownership of this land) where the future expansion of cities is to take place ; (d) the implementation of urban reform — a concept that goes beyond simple changes in the urban and suburban land tenure systems and land uses, to include new systems or urban government and public investment, new methods of popular participation and essentially a change in the power structure that controls decisions affecting the dynamics of urban growth and the internal structure of cities ; (e) the evaluation of the technology that should be incorporated in the future construction of cities, as the type of technology will affect what are the first social, economic and political priorities.

Recommendation

We believe that Christians will want to be involved in the attempts to make the urban environment a really human environment for the large numbers who live

in cities. As they are concerned with the quality of life, they will want to know about future urban trends. We therefore recommend an international study (of perhaps seven or eight countries) on comparative urban policies and their relationship to other regions of the country in the framework of national development efforts. We see this as a sharing of experience between nations, e.g. between Africa and Latin America. Such a study could therefore include case studies of selected countries. It might include such matters as national, regional and local policies, the requirements of urban reform, comparative legislation, the proportion of investment resources in different sectors, the costs of urban development and redevelopment, and the way all these affect the total environment of city dwellers.

Resolution

Local churches should study the opportunities of using their resources (in land or financial investments) to help the poorer sections of the urban community — by for example providing land for housing and public services, or helping in the housing of low income groups (through technical assistance, housing cooperatives, etc.).

III. Participation in a Technological World — The Future of Our Political and Economic Systems

How fragile is our social structure ? How is it adapting to the impact of technology ? What is the future of responsible government ? Can it respond creatively to the two pressures of the experts, on the one hand, with their growing demand for ever more complex machines and techniques, and, on the other hand, of those who feel themselves alienated from society, whether it be the depressed groups within a nation or the developing countries within the world ? These questions press upon all societies in one way or another with particular respect to the political structures and the systems of economic organization. Thus the developed countries question their traditional structures, while the developing countries feel that foreign technology is imposed on them from outside and encourages the growth of the power of select groups who work hand-in-hand with foreign interests.

Knowledge and the means to use it involves power. The knowledge technology affords is both concentrated in the hands of limited groups of experts (themselves often limited in the range of their knowledge) and in the hands of the richer developed countries. At the same time this concentrated knowledge and the complex machines which it makes use of and which make use of it are themselves involved in complex social situations. Technologists work in groups with power structures and in relation with other power groups — academic administrations, business corporations, political administrations, etc. Everywhere modern technology is accompanied by a proliferation of committees and a growth of bureaucratic processes. Even those centralized states, which seem the most powerful from outside, are in reality threatened with incoherency when seen from within. Power struggles, failure of communication, duplication of effort, paralysis from over-complication — these are the other side of the technical means which have made possible the concentration of large numbers of people in cities, the growth of population, the diffusion of knowledge, the complication of specialized knowledge. Modern government — whether in business, in the city, in the nation, between nations —

suffers from concentration of power and incoherence at the same time. Expert knowledge grows, planning extends its range of vision, but politicians become more confused while the people often become more cynical. What does democratic government mean in our technological society ?

The politician and the layman are confused by the apparently conflicting advice the experts give, while the experts themselves are frustrated, and the public is tempted to believe that there is some great conspiracy of the powerful "establishment" which is unresponsive to the real needs and wishes of the people — as indeed it often is. Everywhere groups in society demand more participation in the determination of their way of life, whether it is in the factory or the university or the control of city government — and precisely at a time when the process of government itself inevitably becomes more complicated.

Similarly, the developing countries know that they have not the power to control their own future without the technology and power which is in the hands of the rich countries, or the powerful international corporations. But the rich countries disclaim responsibility and the corporations rarely, if ever, accept it. Each carry on their "business as usual", while frustration grows in the developing world.

Much may be done by sensible systems of regionalizing government or decentralizing the decision structure, but the inevitable problems of growing complexity remain if we are to have the benefits of our modern technological knowledge. But at the same time this must meet the demands for participation by ordinary people if we are to live as human beings in a humane society. On the one hand, there have to be surveys, market research, computerized statistics, planners and civil servants ; but at the same time also more opportunities for people to criticize the experts, to explain what they need and want, to protest and to propose. This adds to the complication, but without it there can be no human society.

What has been said applies to all countries in many different ways. But it also applies between nations, and particularly between the developed and the developing nations. Most of the resources of the world are at the moment used by a small fraction of the world community for their own benefit, and the majority of the world's population have little say in this. They often feel like the man in the street in a developed country feels in relation to the business and political leaders of his own country. Only when every country feels part of the globe can the problems which at the moment create tensions between countries be solved in the interests of the world as a whole. It is in this context that we draw attention to the points made on "the transfer of power" as well as "the transfer of technology" in the report of the Geneva Conference of June 1970 (*From Here to Where?*, pp. 57-58), which refer to several aspects of our political and economic systems.

The growing concern with pollution of the oceans and the air also shows up how inadequate is our machinery of government on a global scale in dealing with the results of a global technology. Here again political inadequacies show themselves in a technological framework of great complexity. Indeed we question whether many of these problems can be dealt with adequately by an international order based on the traditional nation-states. Our international agencies are steps in the right direction, but only rudimentary and immature experiments, which are quite unequipped to meet the needs of the people everywhere which make themselves felt more and more.

On the one hand we can see that protests in the name of participation threaten to break up society, because some no longer believe that government is for the people. The same protests on an international scale threaten the relations between the developed and developing countries. At the same time we can sometimes see international cooperation developing fruitfully. And within nations

experiments in participation and enlarged democracy in universities, in cities, within businesses, show that there might be a constructive way forward. We want to live as responsible human beings in a machine and computer world. We want to live as citizens of the world, and not merely as clinging to our countries' rights and powers.

Recommendation

We recommend that Church and Society promote some studies of: a) the problems and possibilities of effective *participation* in decision-making within political and economic systems in the technological context of our time. They might concentrate on particular regions, and on particular areas of decision-making, such as the formulation and execution of urban plans, educational policies, industry, or popular participation in political systems which are not based on traditional democratic forms ; b) the possibilities of transfers of power (and not merely technology) to developing countries from developed countries as proposed by the Geneva Conference 1970.

We urge the churches to act creatively to stimulate participation in many new efforts for world economic development and social justice taking account of what has been said at Uppsala and by SODEPAX.

The WCC should investigate whether it could promote and finance a large-scale publishing programme in the field particularly of urban development. This would consist of simply written pamphlets making full use of expert advice and knowledge to bring home to people the problems of the cities in which they live and how they can make their influence felt in urban reform and the formulation of humane urban policies.

Third Report: Images of the Future

I. Faith and the Future

Because the possibilities for shaping the future are inestimably greater now than in any earlier generation, much attention has been given to the future in the last two decades. In this analysis and pre-visioning, Christians have their own responsibility. Their hope in the Kingdom of God and their faith in a God who requires their cooperation in the accomplishment of his promises, necessarily distinguishes their thinking about the future from the thinking of any who see the rules of society as determined. The same faith distinguishes Christian thought about the future from that of any who would (in their different ways) renounce the future: existentialists, hedonists, quietists, and satisfied traditionalists.

Christian faith in the presence now and the future coming of Jesus Christ and in the Kingdom of God opens before us the perspective of a new heaven and a new earth — an ultimate good that transcends earthly life. At the same time it dramatizes our responsibility for a temporal and earthly future. Faith is more than a consolation for the suffering and the oppressed. It is active hope. Responding to those others who can only despair of the future and resign themselves to it, Christians refuse to wait for the future, but work on it now in that cooperation with God which is their inescapable responsibility.

This vigour and hopefulness in the Christian approach to the future does not for a moment minimize the threats to men which mount along with the power to shape the future: war, hunger, population explosion, ecological disaster. Christian faith provides us with a realistic framework within which to work for the future. On the one hand, it shows us the great numbers of opportunities for stewardship and active cooperation as "co-workers with the creator" *(Cooperatores Dei)*. On the other hand, it reminds us always of our sinful self-centredness as the most destructive element in all our planning, structures and images for a better future for the world. Christian faith has no illusions about man, but neither does it leave us in despair, because it enables us to "work together with God".

In addressing ourselves to the future therefore, peace in a full and positive sense must be the orientation both for long and short-term thinking and acting. Structures, systems, choices are not the whole of life. Images are very important also; for instance, the cultural revolution in China has been and is an image and not only a model. Therefore we take images not as individualistic and occasional happenings, but as life embracing sources of discipline, courage and hope. The biblical language speaks here of visions, new visions.

The most obvious operative images of the future (excepting those which either anticipate the extension of the status quo, or put all their trust in the sufficiency of present technological processes to arrange an adequate future) suggest several approaches to the problem of the future:

1. Some think that a total, rapid, and even violent transformation of society is the only way ahead.
2. Others — just as ready for discontinuity with the past, just as ready for radical newness, despairing of all observable trends in present society — drop out of that society, and drop out in sufficient numbers to constitute a counter-culture. Some members of that counter-culture then go on to devise new models for community life and industrial organization: intermediate technologies, communes, etc.
3. Still others want to reshape the world society through step-by-step reforms which may be drastic but which will be designed to take advantage of the present stage of technology and to avoid the dangers involved in its dislocation.

In approaching the future on his own premises, and in making alliances with others on the way, the Christian recognizes three levels in progression:

1. *Prognosis* — analysis, a description of observable trends, extrapolation;
2. *Utopia* — the imaginative projection of ideal possibility, thoughtful play with optimal eventualities, another kind of discernment.
3. *Planning* — devising strategies and policies in the light of new facts, new methods, and new contexts, to get us from prognosis (1) to utopia (2).

All of this reflection, dreaming, and proposing is, of course, done on the way to action and in the midst of action. With the gifts for which we are grateful, we *do* something about the future we hail.

II. Analyses and New Visions: Images of the Future in Current Ideologies

We use the term ideology for a system of ideas which can organize human political behaviour. Therefore, we attribute to ideology a capacity to provide visions of the future of men and society which direct and sustain the hope of

significant numbers of the peoples of the world. We will discuss here a typology of the way in which current ideologies deal with the future. Their distribution is for the most part geographical. But this typology is not exclusively geographical. In the same country we can find among the different generations, classes, and occupational groups, instances of all the ideologies mentioned below. In the case of each ideology we try to present a characterization, a critical evaluation, and a healing vision of its future. In this, we as Christians join with non-Christians in exercising judgement, and in searching for the healing visions for the crisis noted in each of the ideologies.

1. *Liberal ideology* is characterized by a belief in the progress and welfare of mankind through individual initiative of persons seeking their goals in a minimally controlled competitive society, especially in the economic realm. The degree of public regulation necessary to maintain this liberty and extend it to all, has been a matter of debate and difference among liberals, but a basic belief in the power of educated individuals to combine the search for their best self interest with the general interest has been its hallmark. The crisis of liberalism arises at two points : (1) the power of modern technology in the hands of large industrial organization (and sometimes of the state) has tended to break down effective competition and deprive the consumer of his power of choice. At the same time rising costs of production make it even more difficult to enter the field ; (2) neither education nor higher standards of consumption provide the freedom and satisfaction which liberals have assumed they would. Nor has the competitive system provided structures of regulation to offer equal opportunity to deprived minorities in affluent countries and to the vast majority of the people of the world. A new vision might involve a new style of economic development which starts from human need, personal and social, instead of from considerations of profit and continuous economic growth.

2. *Marxist ideology* in socialist countries is characterized by the confident belief that the socialization of the means of production should bring about the disappearance of the alienating and oppressive structures of the state at the same time that it brings about the well-being of the whole population. Our critical evaluation of the crisis of Marxism centres on two elements : (1) in socialist countries the state has strengthened rather than weakened in spite of all attempts at greater self-determination for the citizenry ; (2) and men have discovered new forms of alienation under the power replacing private capital. A new vision might involve a more democratic control of the state and the development of greater political freedom as the condition for the emergence of a fully free society.

3. A *social democratic ideology* has operated between Marxism and liberalism as the belief in a planned economy basically regulated and partly directed by the state though allowing for a private sector, controlled by democratic means of participation in both economic and political decision-making. Its crisis lies (1) in the failure of its structures to combine freedom with planning in an effective way so as to control great centres of power and release creative human effort, and (2) in the limits of its rationalist, materialistic vision which has failed to capture the imagination of a new and more affluent generation.

A new vision might involve planning not just for economic prosperity but for the enabling of cultural and religious creativity and new forms of service to others in a world-wide context combined with a healthy realism about the problems of all concentrated power, even when theoretically under democratic control.

4. *Technocratism* as an aspect of industrialized society is characterized by an effort to avoid the consequences of unregulated capitalism and of authoritarian

socialism. It expresses the conviction that the rationalization of technology, resources and needs should be able to resolve the grievous distortions and inequalities of contemporary society. Our critical evaluation of its crisis notes: (1) a tendency to technical abstraction; and (2) its ruthless failure to take into account the avoidable human sacrifices to technological change. A new vision might involve the abandonment of this abstract inhumanity and the integration of technical planning, and the needs of human being as individuals and social classes.

5. *Nationalism* and the search for ethnic and racial separatism are widespread characteristics both of nation-states and of sectors of national population that feel themselves denigrated and oppressed. Critical evaluation centres on two elements: (1) the discrepancy between the size, boundaries and resources of nations or irridentist groups and the increasing interdependence of the world; (2) the barriers that such self-bounded groups interpose between their interests and the interests of the rest of the world. A new vision involves substituting concepts of nationhood, regional cooperation, and cultural pluralism for competition among nations and ethnic groups, and world organizations representing *people* rather than nations.

6. *Reactive ideologies* which have been currently called counter-culture, are characterized by a rejection of the technological and bureaucratic aspects of the previously discussed ideologies. They are characteristic of industrially advanced countries, reacting against such values as productivity, efficiency, competitiveness, traditional education, high standards of living, restraint and rationalization. It celebrates other values: gratuity, pleasure, contemplation, the brotherhood of community, spontaneity, frugality, non-repression. It often draws upon the traditional religions of the Orient, Hinduism and Buddhism, and today in a certain way from Maoism. Our critical evaluation is that its crisis may be found (1) in its localization in small, marginal groups, and (2) in its parasitism on an affluent society. A new vision may involve the possibility of the counter-culture becoming institutionalized as an internal corrective to the wider society, as a dedicated and inspirational monasticism, rather than as an ermitism which is self-centred and escapist.

7. *Cultural traditionalism*, as in many countries of the Third World, is characterized by the conviction that human and community traditions possess a wisdom and a cosmic and personal equilibrium which is most precious. This is also implicit in peasant communities everywhere in the world. It emphasizes the extended family, the relation of man with the soil, and "the liaison between myths and technics". Our critical evaluation of its crisis centres on the archaic quality of some of these traditions, menaced by a technology necessitated by the population explosion, and the small range given to the innovative capacities of man. A new vision here involves a now indispensable dialogue between knowledge and wisdom, innovation and equilibrium, between external structures and interior images.

III. On the Increasing Importance of the Arts and Multisensory Communication

The Protestant churches have relied from their beginning upon the word, both poetry and prose, written and spoken and sung, to convey the meaning of the gospel. Today there are urgent reasons for the inclusion of the other arts — painting, sculpture, film and dance — in the creation of a more bracing and all-embracing Christian ethos. The young in great stretches of the world are a gene-

ration reared on visual images: in the mass media, in photography, in film and television and educational aids. To communicate with them we cannot first lead them back into our limited repertoire of address, but must ourselves emerge from verbal bondage to new, more vivid, moving forms. The healthy (and biblical) emphasis on the wholeness of life requires a renewed emphasis on bodily participation through movement in both communication and response ; hence, dance, and other rhythmic, musical activity. Any thoroughgoing attempt to conduct dialogues with members of the Roman Catholic Church, with members of the Eastern Christian churches, and with other living faiths, depends in part upon a much more interior appreciation than most Protestants now have of their iconography, their multi-sensory rituals and the rich artistic expression of their religious feeling.

The recent revolution in the arts in the western world, in which the academic and classical tradition has been shattered, may be usefully suggestive when seen as pre-figuring impending similar breaks with the academic and classical traditions in political forms, social organization, educational patterns, scientific thinking. Attention to the arts with their new endorsement of tentativity and movement, of the shattering and rearrangement of old forms, provides a way in which other necessary changes can be initially experienced and understood. The arts play an important part in releasing the creativity of all human beings, and not only in the artistically talented. There is a search in the world today for new rituals which combine tradition and innovation and appeal to the active participation of the whole body and all the senses. A Church interested in such human hungers and not eager to be manœuvered out of its ancient domain must realize that it is only through the arts that these demands will be met. All forms of the arts are therefore significant for the re-affirmation of whatever is valid and useful in traditional values, and for the preparation for those changes on which hinge a more human future for mankind hangs.

IV. Psychological Implications

The uncertainty about the future has a variety of psychological ramifications. A problematic future can either paralyze or propel man. An open and liberating future vision can energize us and give us the motivation for present action which both anticipates the future and also enables us to participate in shaping it. A closed and threatening future creates anxiety and concomitant paralysis by making the present irrelevant in relation to it and fostering a sense of meaninglessness which can only be escaped by passive resignation, fantasy, or a bleak pessimism deliberately devoid of hope. The past and the future meet in the present in two ways. One, the future is already present in the sense that our present actions determine or at least suggest what our future is likely to be. Second, the future is only open to those who have come to terms with their past, that is, the past denied is in fact only repressed and remains to bedevil us but the past understood *and* accepted is then able to be transcended and makes an open future possible. This is why history and eschatology must always be kept in a dialectical polarity.

Part of the malaise of modern man, understood in psychological terms, is his uncertainty whether he can adjust himself to the new configurations of the future fast enough to be able to survive within this new psychic environment. That is, is man psychologically able to adapt rapidly enough to keep pace with the rapidity of scientific and technological advance and survive in the new world being born ? Is revolutionary change able to accelerate at a rate equal to that of technological change ?

Another factor in modern man's search for his true identity, both in individual and communal terms, is his urge to preserve primal connections, to maintain the history of his development which has and still does form him, and yet also affirm his constantly developing skills, including scientific, technological, artistic and other, which may be the means through which he is able to maintain his existence in the future. This suggests that we must be prepared to be more open and imaginative in considering new ways in which we can examine new options in terms of developing our human capacities for entering the new worlds of the future whether through mind-expanding facilitators, technical, chemical or educational or technical and scientific resources, such as the computer. For the history of man indicates that the new environments to which he has constantly had to adapt are only viable for him when both innate and newly developed skills or tools are invented which equip him to survive in the emerging climates of the future. One of the hopeful elements in the present crisis of confidence in the future is that the very peril of the present situation may foster the motivation for experimentation and consideration of new models because man's ultimate survival depends on this flexibility and imaginative exploration of the future terrain with faith and courage.

Man's identity is shaped also by his self-image. A theological anthropology which accepts and affirms man in his wholeness, body and soul, natural and technological, may provide man with the psychological courage to use all his resources, imaginative and scientific, to come to terms with the future and to engage in shaping it for the benefit of all and to the glory of God. But man's creative potentialities are often restricted by theological taboos or psychological inhibitions. If, for example, we are not able to incorporate theologically an appreciation of tools and machines in a sacramental way (i.e. as "means of grace"), we lessen our possibilities for coping with the future world, which by its complexity and intricacy requires an amplification of man's "natural" rational and intuitive talents through sophisticated instruments and machines. Or if we are not able to be liberated from past models and styles of life or modes of operation and be psychologically "relaxed" in relation to the past we are not likely to be free in our consideration of radically new forms and styles of life appropriate to and viable in the new emerging environment in the future. In short, a vision of the images of the future requires motivating power to move forward in realizing them. Faith without work is death. May the Christian hope in the Creator, the crucified and risen Lord Jesus Christ, and the continuing work of the Holy Spirit, be the dynamic inspiration for our plans, our visions, and our active responsibility for the future.

V. Recommendations:

1. Visions of the future from youth, artists and others : *a)* in order to draw upon those experiences of today's youth which their elders do not share, it is important to provide for one or more happenings in which youth can embody their experiments and experiences ; *b)* a group, or groups of artists should be asked to express in their art forms their visions of the future ; *c)* children's drawings and writings reflecting their perspectives on the future should be collected. This series of projects should be entrusted to John Taylor and the WCC department on the film and visual arts, to be filmed and made available throughout the world.

2. In Geneva there should be set up an ongoing seminar on relationships between science, technology and the Church, involving WCC staff, the Geneva

churches, and scientists and technologists resident in Geneva, in CERN, WHO, etc., as an experiment in interpretation to Christian congregations.

3. In the projected dialogue with other living faiths and ideologies, the concerns of the Church and Society working group on Technology, Social Justice and the Future of Man should be included, and these discussions, in turn, become part of the agenda of Church and Society.

4. We strongly endorse plans of the Department on Church and Society for regional conferences in the Third World (Africa, Asia and Latin America), aimed at an ecumenical inquiry on the future of man and society.

* * *

As this report on "Images of the Future" represents a first tentative step for the World Council into what is a new field, we append two critiques by people who were present at the Working Committee meeting as a spur to further debate.

From Prof. S. L. Parmar, India

Our discussion of "Images of the Future" caused me some misgivings as it seemed to rely heavily on the western experience of "counter-culture" and looked upon cultural change in terms of "happenings". Perhaps this is too sweeping a statement, hence not quite fair. The point I wish to make is that any approach to cultural change which appears to be intuitive and laissez-fairist, does not bear upon the realities of our situation.

The counter-culture in the West has many positive elements for the Third World. It questions the blind pursuit of material prosperity, it exposes the "poverty of affluence", it stresses the importance of human understanding of development, wherein men may use material resources responsibly without being enslaved by the power of technology and of economic and political structures.

However, in all discussions of future cultural trends the somewhat different (perhaps even fundamentally different) situation of developing countries should be kept in view to save our perspective from becoming limited.

Cultural patterns of the future are conditioned by the past and the present. "What is" represents a heritage. "What will be" should represent the tension between "cultural traditionalism" and quest for modernization. No matter how one may interpret modernization the fact remains that it involves some break with "what is". Developing countries struggle to attain social and economic development. Their poverty enjoins them to strive for a high rate of economic growth. Their structural rigidity seen in terms of the social expectations of the people needs to be broken down to ensure new structures of social justice and equality of opportunity. Economic planning may, up to a point, lead to a satisfactory rate of growth even within existing structures. But the time comes (and we have numerous examples of this from the Third World) when the growth process slows down or grinds to a halt due to the obstruction of socio-cultural rigidities.

It, therefore, becomes essential to create positive preconditions for economic development by breaking down cultural obstacles and promoting a new cultural ethos. This would require some kind of cultural change. Such a movement may rightly be termed "cultural revolution". The recent Chinese experience is a case in point. But it need not be the only model for developing nations. The Gandhian movement of non-violent resistance had a strong cultural content. Part of the preparation and discipline for non-violent struggle involved efforts to erode old cultural values and institutions and replace them by new ones. The point I am trying to make is that "cultural

revolution" is a necessary pre-requisite for radical change and development in the Third World; that such change is not automatic or spontaneous but has to be "engineered"; that, therefore, our images of the future should take note of such managed cultural change. The experience of counter-culture movements in the West has many lessons for us but it stems from social realities which are quite different to ours. Consequently a global perspective requires keeping in tension, even in a dialectical relationship, the spontaneity of one experience with the managed nature of the other.

From Prof. Charles West, USA

At one inspired point this report speaks of three steps in approaching the future, which, it warns, must be taken by communities where persons interact: prognosis which is analytical; utopia, which is imaginative discernment of possibilities; and planning, which is action resulting from the first two. My problem with the report as a whole is that it has ignored this helpful formula completely after stating it. Analysis concentrates on ideologies, not social trends. Instead of utopianizing and planning we have an appeal for multi-sensory forms of communication and the freeing up of people psychologically for all kinds of new experiences out of which visions of the future may come.

It may well be that some people need psychological liberation— although the record of "mind-expanding facilitators", especially chemical ones, in providing it has not been too good, and computers, however useful they are in clarifying our options, do little for our psychology. It certainly is true that the Church needs to make better use of the arts. But to offer methods instead of visions, to absolutize the experience of life at the cost of its goals, liberates no one. It simply enslaves us more securely to ourselves. This is the blind alley into which counter-culture, if we take it as a main theme, can lead us. Daniel Bell, whose analysis this working group ignored, is right I believe in tracing this tendency back to Hegel and his drive to make the self infinite and absolute.

The report, in going up this blind alley, has denied us its basic contribution. We need utopias, projected by adventurous ideologues on the basis of convincing analysis of present trends and leading to actions that engage us fully in their realization. We need pictures of how human community might be structured so as to be peaceful, hopeful and loving, pictures which convince us by realistic analysis that we could get from here to there. What we do not *need is more psychological liberation without a sense of direction to it. One after another the social institutions which we once took to be meaningful, reformable, and basic to human community, are crumbling and losing their self-respect before our eyes: the family, the school, the police force, the liberal political party, and some would say the Church, to name only a few in the personal experience of this writer. The conservatism of modern man is not due to hideboundness half so much as to fear of chaos. We need visions of new forms of society which take account of the fact that we are by creation limited and defined in our relations to one another and to God, and will show how we can live in those relations responsibly and with hope that the powers pushing us around may be coerced into creative rather than destructive patterns.*

Traditionally this dynamic ideal has been called justice. It has never been adequately defined for all the volumes written on it. We might well turn to the task again.

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